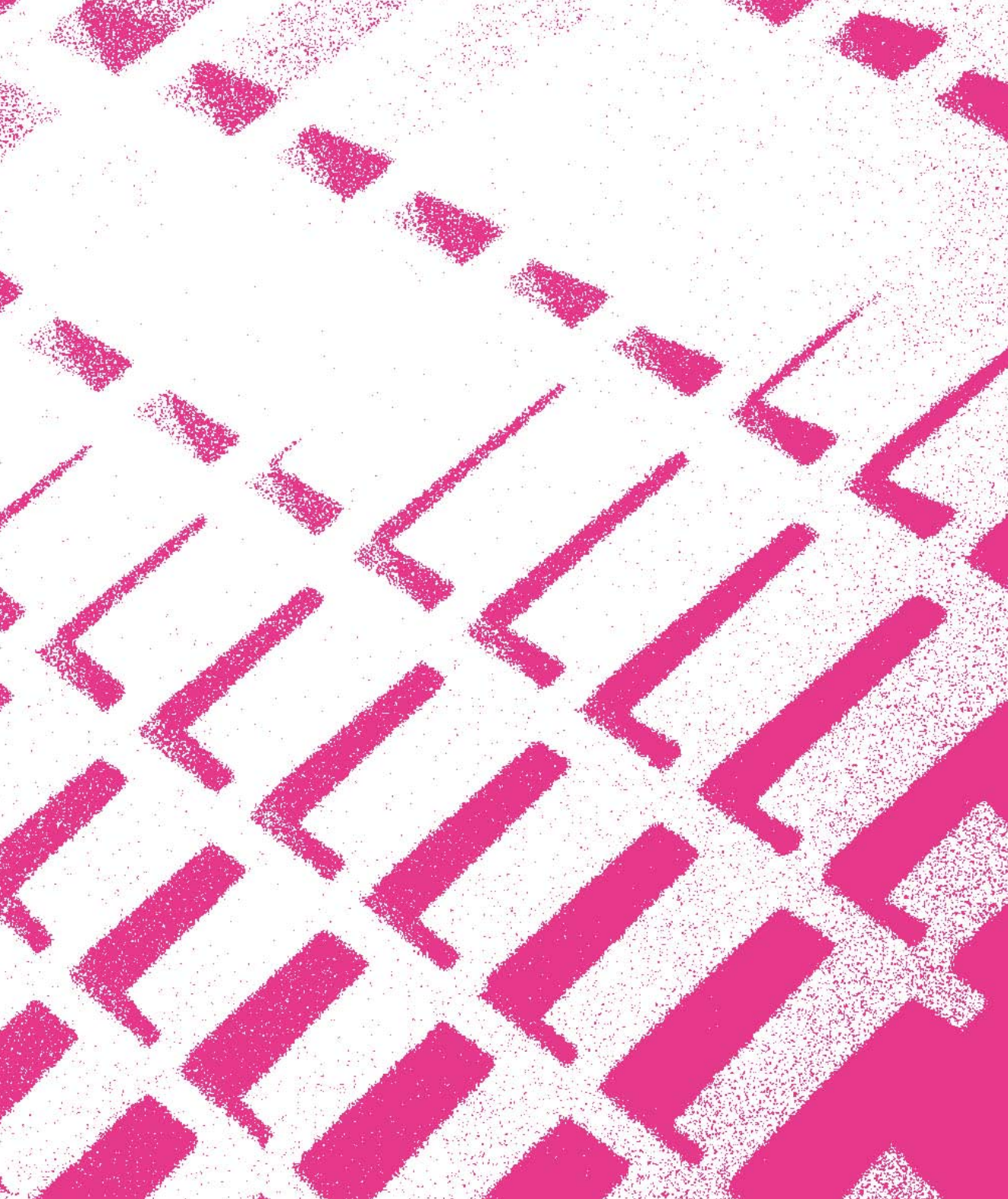
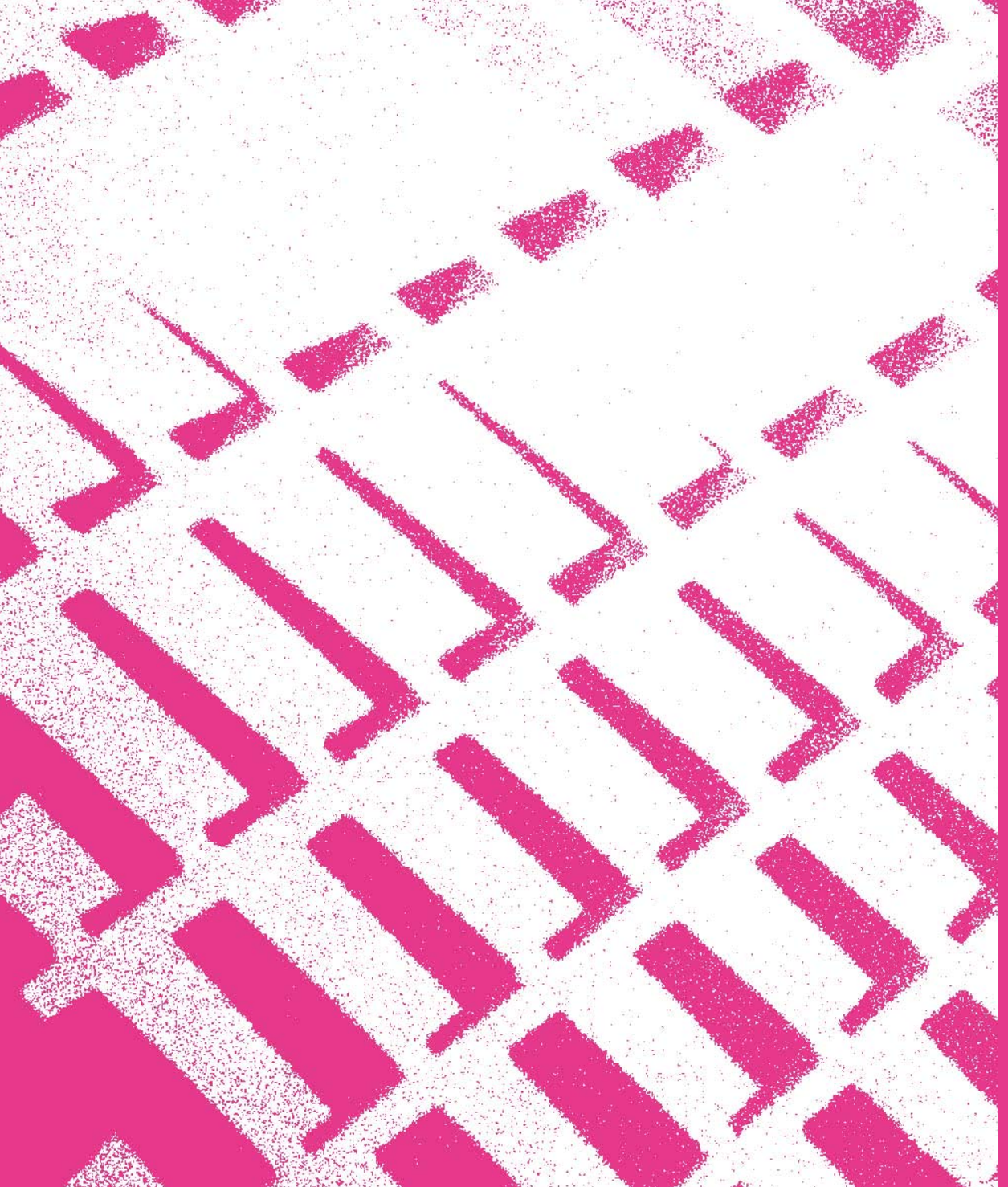




A L I C E

venice architecture biennale 2008

EPFL / ENAC / IA / ALICE
atelier de la conception de l'espace
EXPLORATIONS IN ARCHITECTURE/ SWISS PAVILLION / VENICE 2008
dieter dietz, olivier otteavere, daniel pokora, isabella pasqualini, katia ritz, marc schmit

Assembly in the Swiss Pavilion

venice architecture biennale 2008

explorations in architecture
teaching design research

In late 2007 the ALICE design studio at EPFL was invited by the Swiss government to participate as part of the Swiss exhibition in the Swiss Pavilion in the Giardini in the Venice Architecture Biennale 2008. The exhibition was to expose research and teaching approaches in Swiss architectural education and how design and research are addresses mutually in four specific design and research studios at the Polytechnical Institutes ETH and EPFL in Zurich and Lausanne. The Swiss Federal Commission on Arts selected the LAPA design studio led by Harry Gugger and the ALICE lab from EPFL, the MAS UD unit by Marc Angélil / Jörg Stollmann at ETH Zurich, and the DFAB lab by Gramazio / Kohler, ETH ZUrich. Under the name "explorations in architecture – teaching, design, research" Reto Geiser curated a show dwelling on the four distinct approaches of those labs, positioning them in a larger global and historical context, as proposed in the parallel publiction of the same title (Birkhäuser, Basel, ISBN-10: 3764389214 / see the ALICE text contribution printed below).

The ALICE contribution, conceived by Marc Schmit in collaboration with Aline Dubach and Katia Ritz, documented the ALICE synthetic approach to architectural design processes taking curriculum and results of the academic year 2007/2008 as background. The exhibition design emphasized on the aspect of parallel investigations conducted with design tools of the architect/designer, locating produced documents from artifacts in physical and digital environments in a spatial disposition challenging the predominant wall layout of the overall exhibition.

The ALICE contribution revisited the production and the design process of the London Pavilion for the London Festival of Architecture 2008 adding a purposefully artificial projection into the given light-cones of the parallel lighthouse project. The installation reanimated the pavilion structure as a purely digital event in a forged simulation of its former presence interacting with the tides in London on the Thames River. The light shooting up in the form of projections on daylight fluorescent cones of light offer a spatial outlook beyond the restraining walls of the Swiss pavilion in the Giardini to create visual distortions similar to the feedback in an amplifying system.

Lightcone projection

exploring uncommon territories:

a synthetic approach to teaching architecture

What We Found There:

`My NAME is Alice, but--'
`It's a stupid enough name!' Humpty Dumpty interrupted impatiently. `What does it mean?'

`MUST a name mean something?' Alice asked doubtfully.
`Of course it must,' Humpty Dumpty said with a short laugh: `MY name means the shape I am--and a good handsome shape it is, too. With a name like yours, you might be any shape, almost.'
Lewis Carroll, 'Through the Looking Glass'

Réalités Parallèles

In its approach to teaching ALICE explores uncommon territories. The choices of topics and sites purposefully join the familiar with very particular geographical, economical or morphological circumstances. We emphasize on working simultaneously with parallel tools, such as physical models, 3D software, images, 2D programs, computer aided manufacturing, etc. ALICE is adopting its curriculum year per year and encompasses new topics, programs, territories, and sites.

The idea of a parallel approach to the conception and production of architectural concepts is a central aspect of the didactical structure. All projects are literally developed both in the digital as well as in the physical world. With "Réalités parallèles" [parallel realities] we propose a method of intense confrontation with an idea of 'making'. 'Making' not only in a physical sense—as for instance in the crafting of models, drawings, or hand-drawn sketches—but 'making' also seen as a production of digital models, visuals, data-bases, images, etc. In this approach the design process is constantly challenged by catalyst 'reactions' in the respective fields of production.

In recent times, the size of our geophysical earth has constantly been challenged by the "technological near" (tele-technology/modes of transports) against the "physical far". Our planet has shrunk and continues to shrink into a reduced and comprehensive object. Our experience of journey, both physical and mental, is being unintentionally eradicated by the loss of intervals and temporalities. On the other hand this presents us with a fresh viewpoint that we cannot directly occupy: The agravitational horizontal window scanning over and over the earth's surface; humankind's third eye. How could architecture not only engage, but

possibly create resistance to this new frictionless world with those new technologies at hand? Could architecture still perform not only as a conductor of flows, but also as a working against the grain of the ever smoother, the ever faster, while remembering the earth pulls us?

The Designer Within

One of the key ideas lying behind our design approach is the constant discourse between the conceptual framework of an architectonic idea and its translation into an actual project. In a educational context at bachelor level this means on the one side the articulation of an architectonic project as a proposal represented in models and drawings and on the other side the development of a coherent program according to this architectonic idea. While projects usually are developed in typical architectonic drawings and models as representations of a given proposal, we are presently exploring the potential of expanding the project scale into a one to one condition. The outset is that the structural constraints present in a life-size construction as well as the physical and spatial impact it effects on us will encourage synthetic thinking and thus emphasize on a holistic approach towards design issues.

In the academic year 2007/2008 a series of explorations on gravity formed the beginning of the semester. The students first produced a physical construct declaring gravity at work. This initial artefact was then subjected to a constant process of analysis, re-evaluation and re-interpretation in 3D software, physical models and architectural drawings and has finally been transformed into a proposal for a site-interactive installation or 'pavilion' for the London Festival of Architecture to be held in June of 2008. At the end of the first semester these proposals were entered in an internal competition and evaluated by a jury in order to form a team of 12 students to further develop the design and bring it to completion.

To realize a construction of a pavilion or an installation in a remote city with a second year design class is an experiment. The basic idea behind it is the exposure of students to processes in architectural production: from conception, through planning, to realization, until finally to the removal of the architectural artefact—thus encompassing a full life cycle of an object.

At the same time such a project questions the position and the viewpoint of the designer. The architect here is not just a creator, he is also a craftsman, a producer, an engineer, a manager, etc. Thus the designer is not only acting from without or above—as if to say from a top view position or from bird's eye perspective—but also from within. The process implies multiple reference-frames for the maker of the design. This is both stressed in the employment of different tools—digital and physical, as well as it is inherent in the actual building of a one to one structure—thus transgressing several levels of representational frames. This altered position of the designer-architect may imply a different understanding of an architectural design process: A process that is emergent.

A Synthetic Approach

This 'synthetic' approach relates to the concept of 'learning by building' and 'embodiment' —core-ideas that are employed in current research on artificial intelligence. Rolf Pfeifer and Josh Bongard lay out the principle ideas of embodiment in Artificial Intelligence research in their recent book 'How the Body Shapes the Way We Think'. The central idea is that we cannot understand intelligence without building physical agents (robots) that can interact with the real world, this in contrast to a view of intelligence as 'control and computation'.

In our studio we employ a 'messy' method that includes a constant making of things on the grounds of formerly conceived ideas, bringing them into a test-condition in physical reality. This testing will directly feed back into the realm of the project ideas. The constant process of conceiving and testing is recorded in the framework of project-based source-books, a format of 'archive-copies' of images and reference material in a chronological and indexed order; – thus the ongoing process is accessible and can be revisited at any time: by the student-designer-makers, but also by anyone visiting the ALICE-web-site.

By expanding our project scales towards life size we are now exploring the possibilities of 'learning by building' in a one to one framework. While building physical models can be seen as a mediating tool between the abstract and the real, allowing for visual/physical simulations of spatial ideas and concepts, the one to one scale directly employs the human body as an interactive component of spatial exploration. The structures built at one to one are spatial constructs and become part of our physical environment. ALICE's main focus is space, as suggested by its acronym. Though being a seemingly common property of architecture, its notion and concept are rarely addressed directly. Other aspects, such as tectonics, structure, materiality, as well as function, economics or further subtexts,

tend to dominate the architectural discourse and often leave space as a residue of the many tasks that architecture is asked to perform.

It is our goal to explore the possibilities to reestablish space as a flexible and powerful criterion in the discourse of environmental, urban, and architectural planning. The outset therefore is the hypothesis that space in itself is not neutral and a subject of presence. This is a starting point of relevance for the consequences of the constantly changing environmental conditions effecting the built space: a growing world population and subsequent urbanization; increased mobility and intensified supply chains; far stretched boundaries of the perceivable world through evolving cultures; any of these matters effect on the conditions of physical space and infer a constraining interaction between the urbanized and the non-inhabitable space on our everyday life. The revolutionary attitude of human projections on the environment throughout history brings up the question for any non-deterministic design methodologies that imply hypothetical knowledge and data analysis at the same level through a synthetic design approach. Therefore our design research examines the tools that are necessary to establish the link between different spatial frames at the interstices of the natural environment and its artificial surrounding.

Processual Knowledge
in Architectural Education

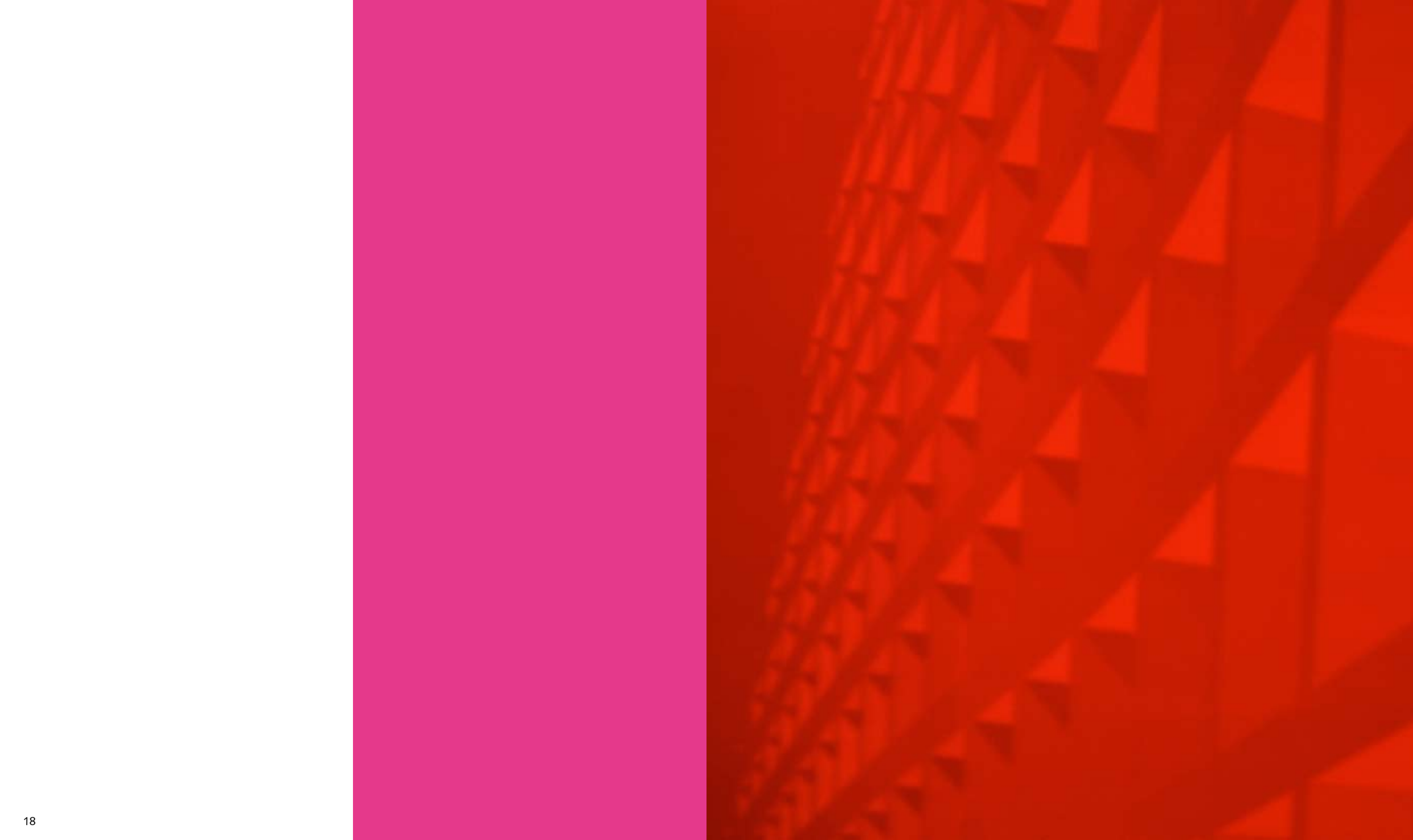
Education is knowledge-based, knowledge-incorporated and knowledge-processed. To focus on knowledge as a processual event side-passes the dangers of a one-sided empirical or rationalist approach towards knowledge as pure databases. Rather it embeds the process of design within the field of research itself.

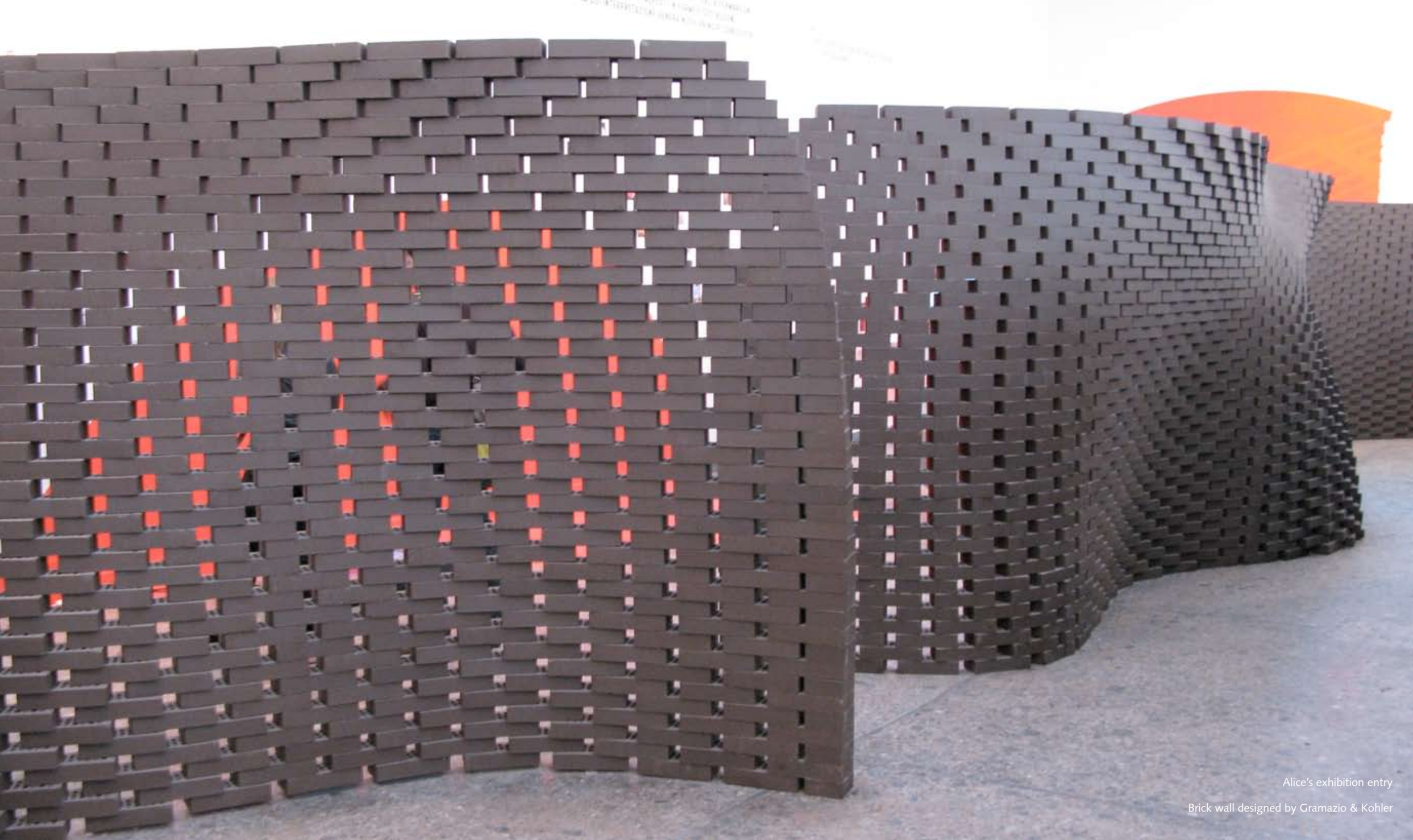
We are interested in this shift of focus from knowledge as data-base towards knowledge as process—because it implies a substantial change in the structure of learning/teaching itself, a shift from reproducing and making towards making and reflecting the made as an ongoing process. Therefore goals cannot be described as determinate entities but are a "process towards" or a "way to". They are in permanent need of adjustment. This also partially implies that searching for predefined solutions is at stake, while architectonic instruments such as type and program remain tools (or parts of a language) that need constant re-evaluation.

While design activities employ the methods and tools from domains adjacent to architecture—therefore the collaboration with the scientist of those fields is of great benefit, architecture has at the same time the potential to explore certain aspects of knowledge processes as spatial events.

In grasping a spatial aspect of knowledge-processes and transforming it into a visual form or a spatial construct this process of interpretation becomes a process of knowledge itself. The specific visual/spatial aspect can be brought in relation to the criteria aforementioned. Therefore ultimately the aesthetic re-evaluation of a process becomes a project itself: scientific and architectonic at the same time.

studio case study: alice





Alice's exhibition entry

Brick wall designed by Gramazio & Kohler

Purposefully artificial projection of the London pavilion into the given light-cones of the lighthouse project

1:1 reanimation of the Overflow structure as a purely digital event in a forged simulation of its former presence interacting with the tides in London on the Thames River.

View through Lightcone

View through lightcones
designed by

Thadée Lucan/ Augusta Porok
Nicolas de Courten/ Patrick
Meier

Lighthouse project designed by

Lila Held

Ensemble photographed by Maris Mezulis

team

alice students 2007/ 2008

Adrien Alberti, Monica Rita Basbouss Moukarzel, Dorette Baumann, Matthias Bellmann, Fatma Ben Amor , Malaïca Cimenti, Esteban Coto Chavarria, Konstantinos Dell'Olivo, Nicolas de Courten, Nathalie Egli, Clio Gachoud, Ann-Madlen Gfeller, Andreas Gubler, Axel Harari, Steffan Heath, Sebastian Hefti, Lila Held, Alexander Hertel, Loïc Jacot-Guillarmod, Philipp Jakob, Aurélie Krotoff, Thaddée Lucan, Aurel Martin, Patrick Meier, Auguste Michaud, Mikael Monteserin, Minh-Luc Pham, Edouard Philippe, Augusta Prorok, Bertrand Sauterel, Christopher Tan, Sandro Tonietti, Andrés Tovar Nuez

alice team

Dieter Dietz, Eveline Galatis, Olivier Ottevaere, Daniel Pokora, Isabella Pasqualini, Katia Ritz, Marc Schmit

acknowledgements

alice exhibition team

Marc Schmit, Aline Dubach, Katia Ritz

concept video installation Ralph Etter

animation Lars Künstler

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Test assembly

www.explorationsinarchitecture.ch

http://alice.epfl.ch/